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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Izumi Matsumoto

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09/09/2004

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EXAMINER

CHAU, COREY P

ART UNIT

PAPER NUMBER

2644

DATE MAILED: 09/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/920,542

Applicant(s)

MATSUMOTO ET AL.

Examiner

Corey P Chau

Art Unit

2644

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 September 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-4 and 7-18 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Application Publication No. 2003/0123351 to Sawabe et al. (hereafter as Sawabe).

3. Regarding Claim 1, Sawabe discloses a sound retrieval apparatus (i.e. apparatus for reproducing) for decoding sound data encoded in advance into a plurality of sound signals to be provided to a plurality of speakers for outputting sound in a three-dimensional sound field (page 1, paragraph 0002), said sound signals being respectively related to a plurality of channels (page 15, paragraphs 0210, 0217, and 0221); comprising: decoding means (93) (Figs. 15 and 16) for decoding said sound data into said sound signals respectively on said channels; assigning means for assigning said channels to said speakers respectively based on the channel assignment information about a specific association between said channels and said speakers (abstract; page 24, paragraphs 0341 and 0350); information storing means (124a) for storing said channel assignment information; and control means (100,124) for

controlling said assigning means based on said channel assignment information to ensure that said sound signals on said channels are provided to said respective speakers in association with said channels.

4. Regarding Claim 2, Sawabe discloses control means is operative to judge whether there is sound data on said respective channels or not to cause said speakers in association with said channels having no sound data thereon to be inoperative (i.e. the system reads the encoded data which contains information about the channel and it is inherent that the bits in the audio coding mode tells the system which channels are in use, such as the audio coding mode in an AC-3 compression) (page 15, paragraph 0224).

5. Regarding Claim 3, Sawabe discloses output level adjusting means for adjusting the output levels of said sound signals respectively on said channels (page 24, paragraphs 0353 and 0354).

6. Regarding Claim 4, Sawabe discloses output level adjusting means is operative to adjust said output levels of said sound signals based on the output level information about a specific association between said channels and said output levels of said sound signals respectively on said channels (Fig. 16; page 24, paragraphs 0353 and 0354), and said information storing means (124a) is operative to store said output level information.

7. Regarding Claim 7, Sawabe discloses selecting means for selecting said sound signals decoded by said decoding means (page 15, paragraph 0216; page 19, paragraph 0297; page 20, paragraph 0306), and summing means for summing said

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sound signals selected by said selecting means to output summed sound signals to respective said speakers (page 15, paragraph 0214).

8. All elements of Claim 8 are comprehended by Claim 7. Claim 8 is rejected for the reasons stated above apropos to Claim 7.

9. Regarding Claim 9, Sawabe discloses display means (99) for displaying the output levels of said sound signals respectively on said channels (Figs 14 and 15).

10. Claim 10 is essentially similar to Claim 1 and is rejected for the reasons stated above apropos to Claim 1.

11. Claim 11 is essentially similar to Claim 2 and is rejected for the reasons stated above apropos to Claim 1.

12. Claim 12 is essentially similar to Claim 3 and is rejected for the reasons stated above apropos to Claim 1.

13. Claim 13 is essentially similar to Claim 4 and is rejected for the reasons stated above apropos to Claim 1.

14. Claim 14 is essentially similar to Claim 5 and is rejected for the reasons stated above apropos to Claim 1.

15. Claim 15 is essentially similar to Claim 6 and is rejected for the reasons stated above apropos to Claim 1.

16. Claim 16 is essentially similar to Claim 7 and is rejected for the reasons stated above apropos to Claim 1.

17. Claim 17 is essentially similar to Claim 8 and is rejected for the reasons stated above apropos to Claim 1.

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18. Claim 18 is essentially similar to Claim 9 and is rejected for the reasons stated above apropos to Claim 1.

19. Claim 19 is rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Application Publication No. 2003/0123346 to Ishii et al. (hereafter as Ishii)

20. Regarding Claim 19, Ishii disclose a sound data recording apparatus for recording sound data encoded in advance from a plurality of sound signals to be provided to a plurality of speakers outputting sound in a three-dimensional sound field, said sound signals being respectively related to a plurality of channels; comprising: inputting means for having the identification data identifying a specific association between said channels and speakers inputted thereto (i.e. first recording area on which multiplexed audio information are recorded as sets of one or more information units, and a second recording area on which control information for controlling recording of the multiplexed audio information are recorded); and recording means for recording said identification data attached to said sound data (i.e. recording means for recording first information representing the number of sets of information composing the multiplexed audio information, and second information instructing to record the multiplexed audio information as a stream in the second recording area) (Claim 3).

***Claim Rejections - 35 USC § 103***

21. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

22. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication No. 2003/0123351 to Sawabe in view of U.S. Patent No. 37724790 to Hilbert.

23. Regarding Claim 5, Sawabe discloses output level adjusting means, but only generally; no specific hardware or software is taught. Therefore it would have been obvious to one having ordinary skill in the art to seek known output level adjusting means. Hilbert discloses stereo-effect enhancement system for increasing the apparent spatial separation in a multi-channel audio system includes variable gain amplifiers and comparator circuits which compare the amplitudes of the audio input signals and adjust the gain of the variable gain amplifiers in accordance with the ratio of the amplitudes of the audio input signals (abstract). It would have been obvious to one having ordinary skill in the art to employ any known output level adjusting means, such as that of Hilbert. Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the gain adjusting means of Hilbert to adjust the gain of the variable gain amplifiers in accordance with the ratio of the amplitudes of the audio input signals

24. All elements of Claim 6 are comprehended by Claim 5. Claim 6 is rejected for the reasons stated above apropos to Claim 5.


**Conclusion**

25. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Corey P Chau whose telephone number is (703)305-0683. The examiner can normally be reached on Monday - Friday 9:00 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Forester W Isen can be reached on (703)305-4386. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

September 2, 2004

  
**FORESTER W. ISEN**  
**SUPERVISORY PATENT EXAMINER**